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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/350,948 07/09/99 CARTER

R 16279-14

EXAMINER

PM82/0320

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ART UNIT

PAPER NUMBER

3673
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03/20/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/350,948

Applicant(s)
CARTER et al.

Examiner
Tara L. Mayo

Group Art Unit
3673



☒ Responsive to communication(s) filed on 9 Jan 2001

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1, 2, 6, 7, and 11-49 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1, 14, 16, 17, 26, 30, 33, 34, 36-45, and 47-49 is/are rejected.

☒ Claim(s) 2, 6, 7, 11-13, 15, 18-25, 27-29, 31, 32, 35, and 46 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 8

☒ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it contains legal phraseology throughout. Correction is required. See MPEP § 608.01(b).

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Claim Objections

3. All *prior* objections of the claims as set forth in the last Office action have been overcome by the response (paper no. 9) filed 09 January 2001.

4. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 49 and 50 have been renumbered 48 and 49.

5. Claims 30, 33, and 49(renumbered) are objected to because of the following informalities: potential rejection under 35 U.S.C. §112, second paragraph.

In claim 30 at line 4, delete "said" and insert therefor --the--. Repeat the correction for claim 30 at line 6(second occurrence) and claim 33 at line 2(second occurrence).

In claim 49 at line 2, immediately following "said" and prior to "two" insert --at least--.

Appropriate correction is required.

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Claim Rejections - 35 U.S.C. § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 48 and 49 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the specification as originally filed does not provide support for the cable pulling device having a first frame portion moveable engaged with a second frame portion.

8. All prior rejections of the claims under 35 U.S.C. §112, second paragraph as set forth in the last Office action have been overcome by the response (paper no. 9) filed 09 January 2001.

Claim Rejections - 35 U.S.C. § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

10. Claims 30 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Lincoln (U.S. Patent No. 6,109,832).

Lincoln '832 shows a mole for use in the trenchless replacement of in-situ pipe, the mole comprising:

- a nose portion (33) being engagable to a cable (14);
- a tapered body portion (40); and
- a replacement pipe engagement portion (60);
- said mole further including at least one blade (44);
- said tapered body portion acting to initially contact, fracture, and expand the in-situ pipe for the replacement thereof with a length of replacement pipe (25); and
- said at least one blade acting to cut pipe engagement devices encountered by said mole after the pipe has been expanded by said tapered body portion;
- wherein a threaded bore (43) is formed within said mole, and wherein a mole engagement fixture (30) is fixedly engaged to an end of the cable, said fixture including a threaded end portion (35) that is threadably engagable with said threaded bore.

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Claim Rejections - 35 U.S.C. § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

12. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisk et al. (U.S. Patent No. Re. 35,542) in view of Poweram Model 7000.

Fisk et al. '542 disclose a device for the trenchless replacement of in-situ pipe comprising:

a mole (22);

a length of cable (25), said cable being engagable to said mole;

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a cable pulling device (28) being releasably engagable to said cable; and
a cable pulling device mounting frame (40) being releasably engagable to said cable
pulling device (col. 6, lines 53 through 61).

Fisk et al. '542 disclose all of the features of the claimed invention with the exception
of:

the cable pulling device being a post-tensioning ram (PTR).

Poweram Model 7000 discloses a PTR designed for replacing existing utilities by
pulling pipe splitting and/or bursting tools through an old pipe and pulling a new pipe into the
same space.

With respect to claim 1, it would have been obvious to one of ordinary skill in the art
of pipe laying at the time of invention to modify the device shown by Fisk et al. '542 such that
it would include a PTR as a cable pulling device as taught by Poweram Model 7000. The
motivation would have been to include a pulling device capable of varying its grip in response
to resistance during operation of the same.

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisk et al.
(U.S. Patent No. Re. 35,542).

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Fisk et al. '542 disclose a device for the trenchless replacement of in-situ pipe comprising:

- a mole (22);
- a length of cable (25), said cable being engagable to said mole;
- a cable pulling device (28) being releasably engagable to said cable; and
- a cable pulling device mounting frame (40) being releasably engagable to said cable pulling device (col. 6, lines 53 through 61).

Fisk et al. '542 disclose all of the features of the claimed invention with the exception of:

the cable pulling device mounting frame including an annulus member including a cable passage bore formed therethrough and a cable insertion slot formed through portions of said annulus member for the sideways insertion of said cable within said cable passage bore for the sideways insertion of said cable within said cable passage bore.

With respect to claim 14, it would have been obvious to one of ordinary skill in the art of pipe laying at the time of invention to modify the mounting frame of the device shown by Fisk et al. '542 such that it would include a cable insertion slot formed through portions of the annulus member. The motivation would have been for positioning of the cable and ease of

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installation of the device as the cable would not have to be "threaded" through the mounting frame.

14. Claims 16, 17, 26, and 36 through 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisk et al. (U.S. Patent No. Re. 35,542) in view of Vermeer.

Fisk et al. '542 disclose all of the features of the claimed invention with the exceptions of:

the mounting frame including a reaction plate having an enlarged surface for disbursing a reaction force against a cable pulling force generated by the cable pulling device; and

the annulus member being mountable in relation to the reaction plate such that the reaction plate will disburse cable pulling forces exerted on the annulus by the cable pulling device.

Vermeer shows a pipe-bursting device comprising a cable pulling device installed in an excavation for pulling an pipe-bursting tool through an existing pipeline, and further including a reaction plate having an enlarged surface positioned between a wall of the excavation and the cable pulling device.

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With respect to claims 16, 26, and 36, it would have been obvious to one of ordinary skill in the art of pipe laying at the time of invention to modify the device shown by Fisk et al. '542 such that it would include a reaction plate as taught by Vermeer. The motivation would have been to include a means of resistance to the cable pulling force whereby the cable pulling device would remain relatively stable.

With respect to claim 17, it would have been obvious to one of ordinary skill in the art of pipe laying at the time of invention to further modify the device shown by Fisk et al. '542 such that the annulus member would be mountable in relation to the reaction plate such that the reaction plate will disburse cable pulling forces exerted on the annulus by the cable pulling device. The motivation would have been to provide continuity between the various components of the device thereby effectively transferring force during use of the same.

With respect to claims 37 through 39, a duplication of parts is not considered be of patentable merit. As such, Applicants' claimed invention is anticipated by the device shown by Fisk et al. '542 and in view of the above statements of obviousness.

With respect to claims 40 through 45, the method steps and associated structural limitations recited therein are considered to inherent to the installation of the device shown by Fisk et al. '542 as modified above by Vermeer.

15. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lincoln (U.S. Patent No. 6,109,832).

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Lincoln '832 shows all of the features of the claimed invention with the exception of:
the fixture further including a hex bolt portion integrally formed therewith and
provided for the tightening of the threaded portion within the threaded bore.

It would have been obvious to one of ordinary skill in the art of earth boring at the time of invention to modify the device shown by Lincoln '832 such that its body would include a hex bolt portion integrally formed therewith. The motivation would have been to facilitate tightening of the threaded portion within the threaded bore with a wrench or other tool.

16. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisk et al. (U.S. Patent No. Re. 35,542) in view of Vermeer as applied to claim 45 above, and further in view of Poweram Model 7000.

Fisk et al. '542 in view of Vermeer disclose all of the method steps and associated structural limitations of the claimed invention with the exception of:

the cable pulling device being a PTR.

Poweram Model 7000 discloses a PTR designed for replacing existing utilities by pulling pipe splitting and/or bursting tools through an old pipe and pulling a new pipe into the same space.

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With respect to claim 47, it would have been obvious to one of ordinary skill in the art of pipe laying at the time of invention to modify the device shown by Fisk et al. '542 as modified above by Vermeer such that it would include a PTR for a cable pulling device as taught by Poweram Model 7000. The motivation would have been to include a pulling device capable of varying its grip in response to resistance during operation of the same.

Allowable Subject Matter

17. Claims 2, 6, 7, 11 through 13, 15, 18 through 25, 27 through 29, 31, 32, 35, and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. The following is a statement of reasons for the indication of allowable subject matter:

With respect to claims 2, 6, 7, 12, 13, and 15, modification of the Poweram Model 7000 device to include the collets is precluded in that the reference is silent with respect to the same and actually appears to teach away from the claimed subject matter with the disclosure of a "jaw system."

With respect to claims 11 and 25, Fisk et al. '542 expressly teaches the use of a mole which spreads an existing pipeline as opposed to fracturing it in column 13 on lines 18 through

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27. Therefore, the reference cannot be modified to include a mole as taught by Lincoln '832 over which claims 30 through 32 and 35 are deemed.

19. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Response to Arguments

20. Applicant's arguments filed 09 January 2001 have been fully considered but they are not persuasive.

With respect to Applicants' statements regarding the Poweram devices and no known use of the same to pull lengths of cable attached to bursting rams or moles through ground, the Examiner notes the express disclosure of the same for pipe rehabilitation applications in the Poweram Model 7000 brochure.

21. Applicant's arguments with respect to claims 1, 30, 33, and 34 have been considered but are moot in view of the new ground(s) of rejection.

With respect to claims 14, 16, 17, and 36 through 39, in response to applicant's argument that there is no suggestion to modify the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art

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to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation for the rejection is found in the knowledge generally available to one of ordinary skill in the art.

Conclusion


22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is (703) 305-3019. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell, can be reached on (703) 308-2151. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3597.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.

 TLM

15 March 2001


William Neuder
Primary Examiner